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## John C. Stennis Space Center Fact Sheet

The John C. Stennis Space Center (SSC) in South Mississippi is NASA's lead center for rocket propulsion testing, with total responsibility for conducting and/or managing all NASA propulsion test programs. One of 10 NASA field centers, SSC is also NASA's Center of Excellence for rocket propulsion testing because of its important role in engine and vehicle testing over the past three decades.

Mississippi entered the space age in the early 1960s when NASA announced plans to place its test facilities for the Saturn V rocket in South Mississippi. Less than eight years later, American astronauts walked on the moon, safely transported hundreds of thousands of miles by a rocket equipped with first- and second-stage boosters tested and proven flightworthy at SSC.

Upon completion of the Apollo and Skylab programs in the early 1970s, the center's role in engine testing moved to the next step in space travel the Space Shuttle. SSC's primary mission today is to test and flight certify Space Shuttle Main Engines (SSME), which power the vehicle during its 8 1/2 minutes of flight to orbit. Stennis began testing the main engines in May 1975.

The Space Shuttle remains a reliable means to access low-Earth orbit. SSC will continue to support this program by testing SSMEs well into the next century. Stennis will also continue to test new flight hardware for the main engine to improve performance and reduce costs.

SSC has been assigned to develop the capabilities to test the propulsion systems hardware for future vehicles that will eventually replace the Space Shuttle. Stennis Space Center is preparing to test much of the propulsion hardware for future launch vehicles at its E-1 Test Facility, formerly the Component Test Facility. Its High Heat Flux Facility also gives the center the capability to perform high-temperature tests on materials for hypersonic aircraft of the future.

SSC's state-of-the-art test facilities, experienced test personnel, canal system and unique 125,828-acre buffer zone are available to support the national interests in propulsion system development testing.

Personnel at SSC are also involved in a wide range of research and technology projects, including the development of remote sensing technology, Earth sciences research, associated data systems development and technology transfer. The states of Mississippi and Louisiana have technology transfer offices located at Stennis.

SSC has the leading responsibility for implementing NASA's commercial remote sensing activities. As such, it works to assist companies involved in areas such as environmental consulting, land use planning and natural resource management. Through these co-funded partnerships, companies use NASA-developed technology to develop information products. SSC also provides the bridge between NASA's Small Spacecraft Technology Initiative program and the private sector for developing commercial remote sensing applications.

In addition, SSC personnel work on a wide range of science projects to study the coastal processes in support of NASA's Mission to Planet Earth science program. Among these projects, scientists work to preserve tropical rain forests in Central America, study sea surface temperatures to determine conditions for red tide outbreak, conduct plant stress analysis and monitor cultural and historical archaeological sites.

SSC is a unique NASA center in that it serves as host to 21 other federal and state agencies and university elements, including the world-class Naval Meteorology and Oceanography Command, which has premiere supercomputing capabilities. The center is also unique in that all agencies share common facilities, services and capabilities so that each may accomplish its independent mission at Stennis in a more cost-effective manner. Approximately 3,500 people are employed at SSC. Roy S. Estess is the director.

**For more information about Stennis Space Center, contact the NASA Public Affairs Office at (601) 688-3341 or 1-800-237-1821, or access the Stennis Space Center home page on the World Wide Web at <http://www.ssc.nasa.gov> (no quotes).**

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